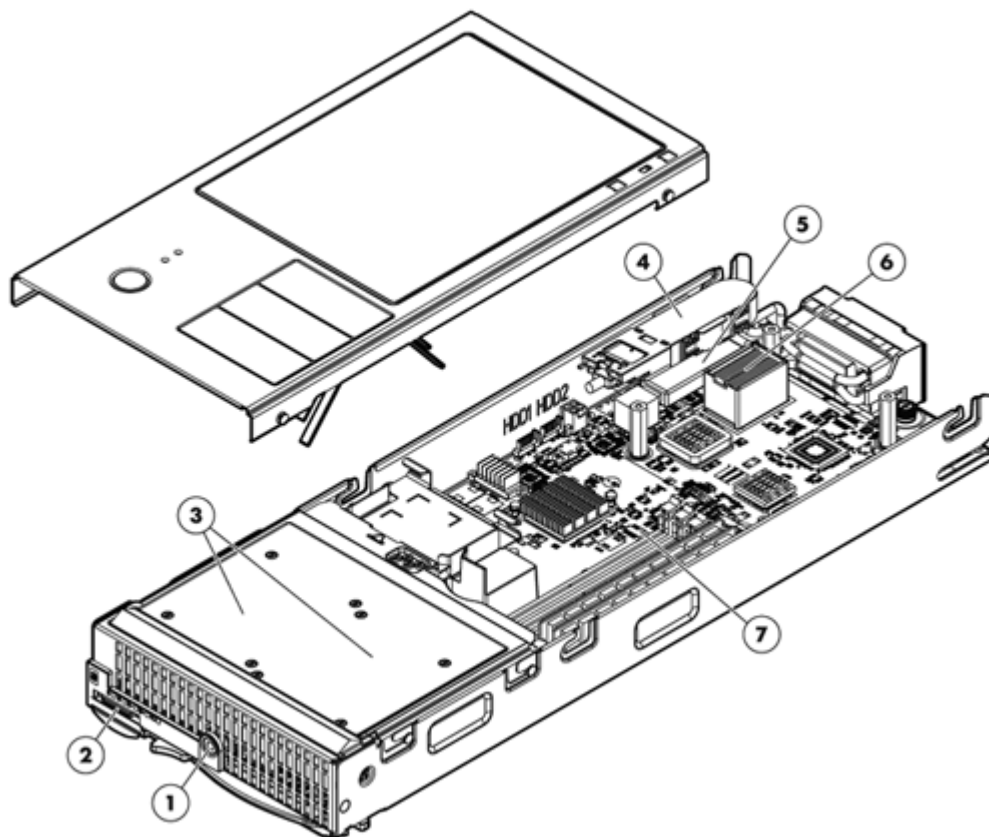


### Overview



### HP ProLiant BL260c G5 Server Blade

- |  |   |
|--|---|
| 1. System Power Button   | 5. Internal USB 2.0 Connector                               |
| 2. SUV Cable connector   | 6. One x8 Mezzanine Connector                               |
| 3. Up to two Quad-Core or Dual-Core Intel® Xeon® processors or one Uni-Processor Intel® Xeon®, Intel® Core™2 Duo or Intel® Celeron®<br>Also, up to two Small form factor (SFF) non hot-plug drives | 7. Six (6) PC2 5200 Registered (DDR2 667) Memory DIMM slots |
| 4. Battery Holder (Future option support)  |   |

### At A Glance

This document covers the HP ProLiant BL260c G5 server blade only. For more information on HP BladeSystems c-Class Infrastructure and HP BladeSystem c-Class Interconnect Components, please see the following QuickSpecs:

HP BladeSystem c-Class Infrastructure QuickSpecs:

[http://h18000.www1.hp.com/products/quickspecs/12517\\_na/12517\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html)

HP BladeSystem c-Class Interconnect Components QuickSpecs:

### Overview

[http://h18000.www1.hp.com/products/quickspecs/12524\\_na/12524\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12524_na/12524_na.html)

The new HP ProLiant BL260c G5 offers small to mid-market class features with high performance and reliability without compromising energy efficiency, density or simplicity

HP ProLiant BL260c G5 server blade includes:

- **Processor:**
  - Up to two Quad-Core Intel® Xeon® 5400 sequence processors
  - Up to two Dual-Core Intel® Xeon® 5200 sequence processors
  - Or one Uni-Processor Intel® Xeon®, Intel® Core™2 Duo or Intel® Celeron®
  - Supports up to 2 Quad-Core 3.00 GHz 1333MHz-2x6 MB Level 2 cache memory
  - Intel® 5100 chipset supporting up to a 1333 MHz Front Side Bus
- **Memory:**
  - Up to 24 GB of memory (with 4GB DIMMS), supported by (6) slots of PC2-5300 Registered ECC DIMMs at 667 MHz
  - Advanced ECC memory support
- **Internal Drive Support:**
  - Up to 2 small form factor (SFF) SATA Non-Hot Plug hard disk drives
  - Supporting Software SATA RAID
- **Network Controller:**
  - One integrated dual-port standard Gigabit Ethernet network adapter (Broadcom 5715S)
  - Additional Ethernet network adapters available via mezzanine cards
  - One (1) additional 10/100 network adapter dedicated to iLO 2 Management
- **Mezzanine Support:**
  - One additional I/O expansion slot via mezzanine card
  - PCIe, x8, standard Mezzanine expansion slot
  - PCI x4 support for Side Car expansion
  - Supports up to 1 additional mezzanine card of your choice:
    - Dual-Port Fibre Channel Mezzanine (4-Gb) options for SAN connectivity (choice of Emulex or QLogic).
    - Ethernet Network Mezzanine options for additional network ports
      - HP NC325m PCI Express Quad Port Gigabit Server Adapter for c-Class BladeSystem
      - HP NC326m PCI Express Dual Port 1Gb Server Adapter for c-Class BladeSystem
      - HP NC360m Dual Port 1GbE BL-c Adapter
      - HP NC364m Quad Port 1GbE BL-c Adapter
      - HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
      - HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
    - 4X DDR InfiniBand (IB) Mezzanine (20 Gb/s) options for low latency server interconnectivity (based on Mellanox technology)
- **Internal USB Support:**
  - One (1) internal USB 2.0 connector for security key devices and USB drive keys
- **Form Factor:**
  - HP ProLiant BL260c server blade plugs vertically into the BladeSystem c3000 and c7000 enclosures
    - 16 blades per c7000 (10u) enclosure
    - 8 blades per c3000 (6U) enclosure
- **Management:**
  - Integrated Lights-Out 2 (iLO 2) Standard Blade Edition with virtual KVM and graphical remote console at no additional cost and iLO2 Select Pack, which offers premium features such as shared remote console (up to four users) and automatic console record / replay capabilities.
- **Operating Systems:**
  - Supports Windows, Linux and Solaris operating systems
- **Enclosures:**
  - HP offers three different c-Class server blade enclosures to meet your individual needs:

### Overview

- The HP BladeSystem c7000 rack enclosure is 10U high and holds up to 16 ProLiant BL260c G5 servers plugged vertically.
- The HP BladeSystem c3000 rack enclosure is 6U high and holds up to 8 HP ProLiant BL260c G5 servers plugged horizontally.
- The HP BladeSystem c3000 tower enclosure is designed with casters for sites without racks and holds up to 8 HP ProLiant BL260c G5 servers plugged vertically.
- Server blades, storage blades, interconnect modules, power supplies, fans, and redundant Onboard Administrator modules are all designed to fit into the c3000 and c7000 enclosures.
- For additional enclosure information, please see: <http://h18004.www1.hp.com/products/ blades/ components/ enclosures/ c- class/ index. html>.
- **Warranty:**
  - Protected by HP Services and a worldwide network of HP Authorized Channel Partners. 1 -year parts, 1 Year Labor and 1 Year on-site limited global warranty. Certain restrictions and exclusions apply. SATA hard drives have a one year warranty.

### Standard Features

**NOTE:** For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: <http://h71028.www7.hp.com/erc/downloads/4AA1-8227enw.pdf>

#### Processor

##### Quad-core Processor Option Kits

Quad-Core Intel® Xeon® processor E5450 (3.00 GHz, 1333FSB, 80W)\*  
Quad-Core Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W)\*  
Quad-Core Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W)  
Quad-core Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W)  
Quad-core Intel® Xeon® Processor E5410 (2.33 GHz, 1333 FSB, 80W)\*  
Quad-Core Intel® Xeon® processor E5405 (2.00 GHz, 1333 FSB, 80W)  
Quad-Core Intel® Xeon® processor L5420 (2.50 GHz, 1333 FSB, 50W)  
Quad-core Intel® Xeon® processor L5410 (2.33 GHz, 1333 FSB, 50W)\*

##### Dual-core Processor Option Kits

Dual-Core Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W)\*  
Dual-Core Intel® Xeon® processor E5205 (1.86 GHz, 1066 FSB, 65W)

##### Intel® Xeon® Uni-Processors Processor Option Kits

##### Quad-core Processor Option Kits

Quad-Core Intel® Xeon® processor X3363 (2.83 GHz, 1333 FSB, 80W)\*  
Quad-Core Intel® Xeon® processor X3353 (2.66 GHz, 1333 FSB, 80W)\*  
Quad-Core Intel® Xeon® processor X3323 (2.50 GHz, 1333 FSB, 80W)\*

##### Dual-core Processor Option Kits

Dual-core Intel® Core™ 2 Duo processor E6405 (2.13GHz, 1066 FSB, 65W)\*  
Dual-core Intel® Core™ 2 Duo processor E6305 (1.86 GHz, 1066 FSB, 65W)\*

##### Single-core Processor Option Kits

Single-Core Intel® Celeron® processor 445 (1.86 GHz, 1066 FSB)\*

\* Offered through Configure-To-Order only. See Factory Integrated Models section for more details.

**NOTE:** Intel® 5400 series processors are Quad-Core and support 64-bit Intel VT. Intel®.

**NOTE:** For the Intel® 5400 series, the letter preceding the model number indicates the performance/wattage of the processor. "X" denotes High Performance/Wattage; "E" denotes Enterprise Performance/Wattage (Mainstream); and "L" denotes Lower Wattage.

#### Upgradeability

Upgradeable to 2 processors when selecting Intel Xeon® 5000 sequence processors

### Standard Features

#### Cache Memory

##### 5000 Sequence Processors

2x6 MB shared L2 cache (5400 Series)

1x6 MB shared L2 cache (5200 Series)

##### Uni-Processors

Quad-Core

2x6 MB shared L2 cache (X3363 and X3353)

1x6 MB shared L2 cache (X3323)

Dual-Core

1x2 MB shared L2 cache (E6405 and E6305)

Single-Core

1x 512 KB shared L2 cache (445)

#### Chipset

Intel®-5100 chipset

#### Memory

Type

PC2-5300 DDR2 Registered ECC DIMMS at 667 MHz

Standard

1 GB (2 x 512 MB)

2 GB (2 x 1 GB)

Maximum

24 GB (6 x 4 GB DIMMs)

**NOTE:** Memory must be installed in pairs.

#### Network Controller

One (1) integrated dual-port Broadcom 5715S-based Gigabit Ethernet network adapter

One (1) additional 10/100 network adapter dedicated to iLO 2 Management

**NOTE:** The Gigabit Ethernet adapters transmit from the server only at 2000 Mbps, full duplex per port. However, within a Linux environment, the speed can be reduced or "throttled" using a feature available within the Linux operating system; see the white paper at:

<http://h71028.www7.hp.com/ERC/downloads/4AA1-5513ENW.pdf> for more information.

The 10 Gigabit KX-4 NC512m adapter transmits from the server only at 20 Gbps (20,000 Mbps), full duplex.

Once the adapter signal reaches the interconnect within the blade enclosure and communicates outside the blade enclosure to the LAN, the blade interconnect uplink types and settings determine the cable media, speed, duplex mode, and auto negotiation mode. Interconnects are available with Ethernet uplinks supporting 10/100/1000T, 10/100/1000 SFP, 1000 SX fiber, and 10Gb KX-4.

#### I/O Expansion Slots

One I/O expansion mezzanine slot (Onex8 )

#### Integrated Manageability

Integrated Lights-Out 2 (iLO 2) Standard Blade Edition (integrated on motherboard)

#### Maximum Internal Storage

Non Hot Plug Serial ATA 240GB SATA (SATA)

2 x 120GB Serial ATA

#### Graphics

Integrated ATI RN-50 1280 x 1024 x 16M color (32 MB DDR1 memory)

Standard Features

Graphics Resolution Supported	Resolution Color Depths	Depths
		1280 x 1024, 16.7M, 64k, 256.16
		1024 x 768, 16.7M, 64k, 256,16
		800 x 600, 16,7M, 64k, 256, 16
		640 x 480, 16,7M, 64k, 256, 16

Fibre Channel on the HP ProLiant BL260c G5 server blade

Two optional Fibre Channel HBAs are supported by the HP ProLiant BL260c G5. Both mezzanine circuit boards connect directly to the server blade system board. These Fibre Channel HBAs are available via option kits and must be ordered separately.

Two option kits

Emulex LPe1105-HP 4Gb FC HBA for HP c-Class BladeSystem (403621-B21)

- Based on the same field-proven ASIC, firmware, and driver technology as Emulex's renowned LPe1150 HBA, the Emulex LPe1105-HP is fully driver compatible with all Emulex HBAs

QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem (403619-B21)

- Uses common drivers which means that customers can standardize on one QLogic driver whether they are using the QMH2462 or other 4Gb and 2Gb HBAs powered by QLogic

Emulex and QLogic Fibre Channel HBAs feature:

- Optimal performance utilizing PCI Express
- 4/2/1Gb/s auto negotiating speeds
- Dual-ports for redundant path connections
- Up to two FC HBAs per server blade providing redundant FC HBA support
- Optimized for HP StorageWorks and supported by third party SAN vendors
- Support for Microsoft® Windows® and Linux operating systems environments

Compatible SAN

HP ProLiant BL260c G5 server blades are optimized for HP StorageWorks MSA, EVA and XP

HP ProLiant BL260c G5 server blades are compatible with select 3rd party SANs Please see blade storage page for more details: <http://h18000.www1.hp.com/products/servers/proliant-bl/c-class/storage.html>

### Standard Features

#### Insight Control Management Suites for BladeSystem

Insight Control Environment for BladeSystem delivers foundation management for HP BladeSystem lifecycles, including hardware resource deployment, health monitoring, software version control, performance monitoring, vulnerability, scanning and patch management and power management.

HP Control Insight Environment for BladeSystem installs and licenses the following components by default using a wizard-based integrated installer:

- HP Systems Insight Manager
- HP iLO Select Pack
- HP Insight Power Manager
- HP ProLiant Essentials Rapid Deployment Pack
- HP ProLiant Essentials Performance Management Pack
- HP ProLiant Essentials Vulnerability and Patch Management Pack
- HP ProLiant Essentials Virtual Machine Management Pack

Additional ProLiant Essentials software and management tools included on the Insight Control Management kit can be installed manually.

- HP Server Migration Pack – Universal Edition
- HP Open Service Event Manager
- HP Instant Support Enterprise Edition

**NOTE:** HP Server Migration Pack – Universal Edition can be installed from the SMP-Universal CD included in the Insight Control Management media kit.

**NOTE:** Insight Control Environment for BladeSystem can be installed from the Insight Control Management DVD, which can be delivered with HP BladeSystem c-Class enclosures with a choice of licensing options. Licensing options include a free 30 day evaluation license for 8 servers (default option for every enclosure order), a full purchased license for 8 blade servers or a full purchased license for 16 blade servers). For additional information on HP c-Class Infrastructure please visit HP BladeSystem c-Class Infrastructure QuickSpecs:

[http://h18000.www1.hp.com/products/quickspecs/12517\\_na/12517\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html)

**NOTE:** For additional product and licensing information about Insight Control Environment for BladeSystem, HP Systems Insight Manager and Essentials software refer to:

<http://www.hp.com/servers/proliantessentials>.

HP Insight Control management suites and most HP ProLiant Essentials include one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit:

<http://www.hp.com/services/insight>.

#### Server Management Stand Alone Software Product – ProLiant Essentials

HP Systems Insight Manager

HP Systems Insight Manager (HP SIM) provides a unified, secure and extensible standards-based environment to centrally manage servers, storage and other infrastructure devices, (both HP and non-HP) across multiple operating system platforms.

Integrated Lights-Out Advanced Pack

Upgrades the iLO 2 processor with comprehensive remote control including Virtual KVM remote graphical console, enhanced console sharing and replay, virtual media (floppy, CD/DVD, USB key), virtual folders, and enterprise security (directory services and two-factor authentication).

### Standard Features

Integrated Lights-Out Select Pack	Upgrades the iLO 2 processor with enhanced console sharing and replay, virtual media (floppy, CD/DVD, USB key), virtual folders, historical power reporting, power capping and enterprise security (directory services and two-factor authentication) for servers managed using remote consoles available in iLO 2 Standard and iLO 2 Standard Blade Edition.
ProLiant Essentials Rapid Deployment Pack	Rapid Deployment Pack (RDP) extends HP Systems Insight Manager with a complete deployment solution for HP ProLiant blade servers. RDP provides a central location to configure server hardware, deploy Windows and Linux operating environments and install HP ProLiant Support Pack drivers using images and scripted profiles.
Insight Power Manager (IPM)	Upgrades the single-server remote management capabilities of iLO Select/Advanced to include centralized reporting and policy-based management of power consumption and thermal output provided by the Insight Power Manager. IPM unifies all of this functionality within a single user interface – HP Systems Insight Manager.
Integrated Lights-Out Power Management Pack	<p>Is energy-efficient management software that delivers centralized control, reliable security, and energy savings for your BladeSystem infrastructure. iPMP combines the total control of iLO 2 Advanced in the area of remote management with the energy monitoring and control of the Insight Power Manager to deliver a robust solution capable of full remote control and power management of ProLiant servers through a unified interface within HP Systems Insight Manager.</p> <p><b>NOTE:</b> Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to: <a href="http://www.hp.com/servers/proliantessentials">http://www.hp.com/servers/proliantessentials</a> or the various ProLiant Essentials Value Pack product QuickSpecs for more information.</p> <p><b>NOTE:</b> Selected software packages listed here include one year of 24 x 7 Software Technical Support and Update Service. If you have any questions about this service please visit the HP website at: <a href="http://www.hp.com/services/insight">http://www.hp.com/services/insight</a>.</p>
ProLiant Essentials Server Migration Pack – Universal Edition	<p>Upgrading, replacing, or virtualizing your existing server? Effortlessly transition to new virtual or physical HP ProLiant servers or BladeSystem with automated, accurate and affordable migration of OS, application and data. SMP Universal automates the manual processes required for migrating servers between physical or virtual platforms, whether migrating to VMware or Microsoft virtual machines. SMP Universal allows all of the following migrations:</p> <ul style="list-style-type: none"><li>● physical to ProLiant</li><li>● physical to virtual</li><li>● virtual to virtual</li><li>● virtual to ProLiant</li></ul> <p><b>NOTE:</b> For more information, visit: <a href="http://www.hp.com/go/migrate">http://www.hp.com/go/migrate</a>.</p>
ProLiant Essentials Performance Management Pack	Performance Management Pack (offered exclusively through the Insight Control suites) – a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources



### Standard Features

The Vulnerability and Patch Management Pack

Vulnerability and Patch Management Pack (offered exclusively through the Insight Control suites) – identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms, and other blended threats.

#### Core Infrastructure Management

SmartStart

SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at:

<http://www.hp.com/servers/smartstart>. SmartStart version supported (minimum): SmartStart 7.60

Insight Management Agents

The Insight Management Agents should be installed on all HP servers to present system instrumentation, health and configuration information into HP Systems Insight Manager and the HP System Management Homepage. The HP System Management Homepage aggregates systems data from Insight Management Agents and other HP management tools, providing a consolidated browser-based interface for managing individual servers. Insight Management Agents and The HP System Management Homepage are included on ProLiant Support Packs, and can also be installed using the server profiles provided with the ProLiant Essentials Rapid Deployment Pack. For additional information about the Management Agents and the HP System Management Homepage please visit the management Web site at:

<http://www.hp.com/servers/manage>.

Subscriber's Choice

Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides software and driver change notifications for ProLiant products. Sign up at:

<http://www.hp.com/go/subscriberschoice>

and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.

ProLiant Support Packs and ROMPaq, software

The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options, available through ProLiant Support Packs the ProLiant Essentials Rapid Deployment Pack, SmartStart or downloaded from software and drivers download pages website at:

<http://www.hp.com/go/support>.

### Standard Features

#### OS Support

Microsoft Windows Server 2003, Standard Edition  
Microsoft Windows Server 2003 R2, Standard Edition  
Microsoft Windows Server 2003, Standard x64 Edition  
Microsoft Windows Server 2003 R2, Standard x64 Edition  
Microsoft Windows Server 2003, Web Edition  
Microsoft Windows Server 2003 R2, Web Edition  
Microsoft Windows Server 2003, Enterprise Edition  
Microsoft Windows Server 2003 R2, Enterprise Edition  
Microsoft Windows Server 2003, Enterprise x64 Edition  
Microsoft Windows Server 2003 R2, Enterprise x64 Edition  
Microsoft Windows Small Business Server 2003, R2  
Microsoft Windows 2008  
Red Hat Enterprise Linux  
Solaris 10 (32 and 64-bit)  
SUSE Linux Enterprise Server

**NOTE:** Not all of the server options support the full list of server operating systems. For the list of operating systems supported on a specific server option, please consult the QuickSpecs for that specific option at: <http://h18004.www1.hp.com/products/blades/components/c-class-components.html>

**NOTE:** For a more complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: <http://www.hp.com/go/supportos>

**NOTE:** For an up-to-date listing of the latest drivers available for the ProLiant BL c-Class, please see: <http://www.compaq.com/support/files/server/us/index.html>

For more Linux OS support & certification information, please visit our the ProLiant & Bladesystem Server Linux matrix at: <http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html>

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#### Integrated Manageability Integrated Lights-Out 2 Standard Blade Edition (iLO 2)

- Virtual KVM based remote console
- Virtual media (single server, browser based access only)
- Remote Serial Console
- Virtual Power Button Control
- Virtual Unit ID control
- Integrated Remote Console (ActiveX Control client)
- Dedicated network connectivity
- OS independent hardware health status
- Present server power consumption
- Browser, command line and scripted access
- Automatic IP Configuration via DHCP/DNS/WINS
- Industry Standard 128-bit Secure Sockets Layer (SSL) and Secure Shell security (SSH)
- Advanced Encryption Standard (AES)/Triple Data Encryption Standard (3DES)
- IML and iLO Event Logging
- Support for 12 user accounts with customizable access privilege
- Single sign-on from HP BladeSystem Onboard Administrator

### Standard Features

#### Availability

- Dual port Fibre Channel Mezzanine card for redundant SAN connection
- Advanced ECC memory - can correct a multi-bit error (up to 4 bits) that occurs within one memory chip
- Network adapter teaming (network fault tolerance, transmit load balancing, switch-assisted load balancing)

#### Industry Standard Compliance

ACPI 2.0 Compliant  
PCI 2.2 Compliant  
WOL Support  
Microsoft® Logo certifications  
USB 2.0 Support

#### Security

- One (1) internal USB 2.0 connector for security key devices and USB drive keys on every BTO model server blade
- Power-on password
- Administrator's password
- Integrated Lights-Out 2 has 12 customizable user accounts and SSL encryption
- Integrated Lights-Out 2 can be disabled via a Global Setting

#### Factory Express Portfolio for Servers and Storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services on your specific server model please contact your sales representative or go to <http://www.hp.com/go/factory-express>.

#### HP Enterprise Configurator

The HP eCo-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

### Standard Features

#### Service and Support

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

HP Care Pack services provide total care and support expertise with committed response designed to meet your IT and business needs.

The HP Care Pack service for HP ProLiant BL c-Class server blades, cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

To fully capitalize on your HP BladeSystem servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether an SMB or large global corporation HP has a HP BladeSystem server support offer to help you speedily deploy and maximize system uptime.

**Recommended Service** - Simplify ProLiant solution implementation, maintenance and management.

- **Support Service** - 4-Hour Response Coverage, 3-Year, 24 x 7, Same Business Day
- **Deployment Service** - Installation and Start Up for HP BladeSystem Infrastructure

**Enhanced Service** - Optimize service level to increase IT performance and availability

- **Support Service** - HP Proactive BladeSystem Service, 1-Year
- **Deployment Service** - Enhanced Network Installation and Start-up for HP BladeSystem Switches

Installation & Start-Up service for HP BladeSystem Infrastructure plus HP BladeSystem Enhanced Network Installation and Start-UP as per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excluding HP holidays.

For a complete listing of service offerings and information visit:

<http://www.hp.com/services/bladeystemsolutions>

<http://www.hp.com/go/proliant/carepack>

### Models

#### Quad-Core Models

**NOTE:** The models below support Intel® Xeon® 5400 sequence processors.

HP BL260c G5 E5430 2G (1P) 464944-B21	Processor(s)	(1) Quad-core Intel® Xeon® Processor E5430 (2.66 GHz, 1333 FSB, 80W)
	One of the following depending on model	(1) Quad-core Intel® Xeon® Processor E5420 (2.50 GHz, 1333 FSB, 80W)
		(1) Quad-core Intel® Xeon® Processor L5420 (2.50 GHz, 1333 FSB, 80W)
		(1) Quad-core Intel® Xeon® Processor E5405 (2.00 GHz, 1333 FSB, 80W)
HP BL260c G5 E5420 2G (1P) 464943-B21	Cache Memory	2 x 6 MB Level 2 cache
	Memory	2 GB (2 x 1 GB) PC2-5300 Registered DDR2-667
HP BL260c G5 L5420 2G (1P) 464946-B21	One of the following depending on model	1 GB (2x512 MB) PC2-5300, Registered DDR2-667
HP BL260c G5 E5405 1G (1P) 464945-B21	Network Adapter	One (1) embedded dual-port NC326i Gigabit Server Adapter network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
	Storage Controller	Software SATA RAID
	Hard Drives	No drives included; (2) SFF Non-Hot Plug SATA drive bays
	Internal Storage	240GB SATA
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

#### Dual-Core Models

**NOTE:** The models below support Intel® Xeon® 5200 sequence processors.

HP BL260c G5 E5205 1G (1P) 464942-B21	Processor(s)	(1) Dual-core Intel® Xeon® uP Processor E5205 (1.86 GHz, 1066 FSB, 65W)
	One of the following depending on model	
	Cache Memory	1x 6 MB Level 2 cache
	One of the following depending on model	
	Memory	1 GB (2 x 512 MB) PC2-5300, FBD DDR2-667
	Network Adapter	One (1) integrated dual-port Gigabit Ethernet Broadcom 5715S-based network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
	Storage Controller	Software SATA RAID
	Hard Drives	No drives included; (2) SFF Non-Hot Plug SATA drive bays
	Internal Storage	240GB SATA
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

Models

Uni-Processor Models

**NOTE:** The models below support Quad-Core, Dual-Core and Single-Core Xeon® uP® Processors.

HP BL260c G5 X3323 2G (1P) 467956-B21	Processor(s) <a href="#">One of the following depending on model</a>	(1) Quad-Core Intel® Xeon® Processor X3323 (2.50 GHz, 1333 FSB, 80W) (1) Dual-Core Intel® Core™2 Duo Processor E6405 (2.13 GHz, 1066 FSB, 65W) (1) Single-Core Intel® Celeron® Processor 445 (1.86 GHz, 1066 FSB, 65W)
HP BL260c G5 E6405 2G (1P) 467957-B21	Cache Memory <a href="#">One of the following depending on model</a>	1 x 6 MB Level 2 cache (X3323) 1 x 2 MB Level 2 cache (Dual-Core uP® Processors) 1 x 512K Level 2 cache (Single-Core uP® Processors)
HP BL260c G5 445 1G (1P) 467958-B21	Memory <a href="#">One of the following depending on model</a>	2 GB (2 x 1 GB) PC2-5300, FBD DDR2-667 1 GB (2 x 512 MB) PC2-5300, FBD DDR2-667
	Network Adapter	One (1) integrated dual-port Gigabit Ethernet Broadcom 5715S-based network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
	Storage Controller	Software SATA RAID
	Hard Drives	No drives included; (2) SFF SATA Non-Hot Plug drive bays
	Internal Storage	240GB SATA
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

### Configuration Information - Factory Integrated Models

**NOTE:** This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on CTO product offerings and requirements.

**NOTE:** HP does not allow factory integration of options into standard models listed above.

Configure-to-order server blades must start with a CTO Blade.

**NOTE:** This product offering does not support HP Factory Express Server Configuration Level 1.

**NOTE:** FIO indicates that this option is a Factory Installable Option.

### Step 1: Base Server Blade Configuration (Select a configurable Blade)

Models	HP ProLiant BL260c G5 CTO Blade	467657-B21
	Configurable Model ships with:	
	One (1) integrated NC326i (Broadcom 5715) Gigabit Ethernet Adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management	
	Integrated Lights-Out 2 Standard Blade Edition	

### Step 2: Choose Required Options (one of the following from each list unless otherwise noted):

Processors	Intel® Xeon® 5000 Sequence Processor Option Kits:	
	Quad-Core Processor Option Kits	
	Quad-Core Intel® Xeon® processor E5450 (3.00 GHz, 1333 FSB, 80W), FIO Base	464885-L21
	Quad-Core Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W), FIO Base	464886-L21
	Quad-Core Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W), FIO Base	464887-L21
	Quad-Core Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W), FIO Base	464888-L21
	Quad-core Intel® Xeon® Processor E5410 (2.33 GHz, 1333 FSB, 80W), FIO Base	464889-L21
	Quad-core Intel® Xeon® Processor E5405 (2.00 GHz, 1333 FSB, 80W), FIO Base	464890-L21
	Quad-Core Intel® Xeon® processor L5420 (2.5 GHz, 1333 FSB, 50W), FIO Base	464891-L21
	Quad-Core Intel® Xeon® processor L5410 (2.33 GHz, 1333 FSB, 50W), FIO Base	464892-L21
	Dual-core Processor Option Kits	
	Dual-Core Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W), FIO Base	464893-L21
	Dual-core Intel® Xeon® Processor E5205 (1.86 GHz, 1066 FSB, 65W), FIO Base	464895-L21
	The following processor options are only available as 1P models	
	Quad-core Processor Option Kits	
	Quad-Core Intel® Xeon® processor X3363 (2.83 GHz, 1333 FSB, 80W), FIO Base	467963-L21
	Quad-Core Intel® Xeon® processor X3353 (2.66 GHz, 1333 FSB, 80W), FIO Base	467964-L21
	Quad-Core Intel® Xeon® processor X3323 (2.50 GHz, 1333 FSB, 80W), FIO Base	467959-L21
	Dual-core Processor Option Kits	
	Dual-core Intel® Core™ 2 Duo processor E6405 (2.13GHz, 1066 FSB, 65W), FIO Base	467960-L21
	Dual-core Intel® Core™ 2 Duo processor E6305 (1.86 GHz, 1066 FSB, 65W), FIO Base	467965-L21
	Single-Core Process Option Kits	
	Single-Core Intel® Xeon® processor 445 (1.86 GHz, 1066 FSB), FIO Base	467961-L21

Configuration Information - Factory Integrated Models

Memory	1 GB REG PC2-5300 DDR2 2 x 512 MB, single rank kit	408850-B21
	2 GB REG PC2-5300 DDR2 2 x 1 GB, single rank kit	408851-B21
	4 GB REG PC2-5300 DDR2 2 x 2 GB, dual rank kit	408853-B21
	8 GB REG PC2-5300 DDR2 2 x 4 GB, dual rank kit	408854-B21
NOTE: Must be installed in pairs.		

### Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, including server blade enclosures interconnect options and power subsystem options; please see the options section below; or the following QuickSpecs:  
HP BladeSystem c-Class Infrastructure QuickSpecs:  
[http://h18000.www1.hp.com/products/quickspecs/12517\\_na/12517\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html)  
and HP BladeSystem c-Class Interconnect Components QuickSpecs:  
[http://h18000.www1.hp.com/products/quickspecs/12524\\_na/12524\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12524_na/12524_na.html).



### Options

Ethernet Mezzanine Options	HP NC325m PCI Express Quad Port 1Gb Server Adapter for c-Class BladeSystem	416585-B21
	HP NC326m PCI Express Dual Port 1Gb Server Adapter for c-Class BladeSystem	406771-B21
	HP NC360m Dual Port 1GbE BL-c Adapter	445978-B21
	HP NC364m Quad Port 1GbE BL-c Adapter	447883-B21
	HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter for c-Class BladeSystem	406770-B21
<p><b>NOTE:</b> The Gigabit Ethernet adapters above transmit from the server only at 2000 Mbps, full duplex per port. For more information, see the "Network Controller" segment in the Standards Features section for more information.</p>		
	HP NC512m Dual Port 10GbE Multifunction BL-c Adapter	440910-B21
<p><b>NOTE:</b> An NC512m network adapter card is required for each server blade connecting to the HP 10Gb Ethernet BL-c Switch.</p>		
<p><b>NOTE:</b> A maximum of one NC512m is supported per server in a type II mezzanine slot.</p>		
<p><b>NOTE:</b> The NC512m requires a minimum of 4 GB of server memory and supports a maximum of 32 GB. Therefore, when an NC512m is installed in a blade server, the server is limited to a maximum of 32 GB of memory.</p>		
<p><b>NOTE:</b> The NC512m adapter transmits from the server only at 2 Gbps, full duplex.</p>		
Fiber Channel Mezzanine Options	Emulex LPe1105 FC Dual Channel 4Gb, PCI-E-to-Fibre Channel Host Bus Adapter	403621-B21
	QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem	403619-B21
HP InfiniBand Mezzanine Options	HP 4X DDR IB Mezzanine HCA for HP BladeSystem c-Class	410533-B21
HP StorageWorks SB40c Storage Blade	<p>HP StorageWorks SB40c Storage Blade</p> <p><b>NOTE:</b> Please see the SB40c Storage Blade QuickSpecs for additional options and configuration information at:</p> <p><a href="http://h18000.www1.hp.com/products/quickspecs/12587_na/12587_na.html">http://h18000.www1.hp.com/products/quickspecs/12587_na/12587_na.html</a></p>	411243-B21
HP PCI Expansion Blade	<p>HP PCI Expansion Blade</p> <p><b>NOTE:</b> Ships with one pre-installed PCI-X connect board. Also includes one PCIe connect board which requires installation.</p> <p><b>NOTE:</b> Please see the HP PCI Expansion Blade QuickSpecs for additional options and configuration information at:</p> <p><a href="http://h18000.www1.hp.com/products/quickspecs/12753_na/12753_na.html">http://h18000.www1.hp.com/products/quickspecs/12753_na/12753_na.html</a></p>	448018-B21

### Options

HP c-Class Tape Blades	HP StorageWorks SB920c Tape Blade	AJ401A
	<b>NOTE:</b> LTO-3 Ultrium technology	
	HP StorageWorks Ultrium 448c Tape Blade	440947-B21
	<b>NOTE:</b> LTO-2 Ultrium technology	
	<b>NOTE:</b> The HP PCI Express Mezzanine Pass-Thru Card for HP BladeSystem (431643-B21) is required when installing a tape blade adjacent to a full-height server blade.	
	<b>NOTE:</b> Please see the HP Tape Blades QuickSpecs for additional options and configuration information at:	
	<a href="http://h18000.www1.hp.com/products/quickspecs/12729_na/12729_na.html">http://h18000.www1.hp.com/products/quickspecs/12729_na/12729_na.html</a>	

### HP Insight Control Management Suites for HP BladeSystem

**NOTE:** Electronic licensing options are available for Insight Control suites software products. Please see the appropriate Insight Control QuickSpecs for additional information.

#### Insight Control Environment for BladeSystem

HP Insight Control Environment for BladeSystem, No Media 1-Server License including 1 year of 24x7 Technical Support and Updates 453484-B21

**NOTE:** Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

HP Insight Control Management Software Media Kit 436222-B21

**NOTE:** Insight Control Management DVD media without licenses. Contains Insight Manager and Essentials software products and components licensed by Insight Control Management suites. Uses an integrated installer to perform quick and accurate software installation and updates.

**NOTE:** For additional HP Insight Control Environment, please see the QuickSpecs at: [http://h18000.www1.hp.com/products/quickspecs/12631\\_na/12631\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html)

#### HP iLO Power Management Pack for BladeSystems

HP iLO Power Management Pack for BladeSystem, No Media, 1-Server License including 1 year of 24x7 Technical Support and Updates 442937-B21

**NOTE:** This option kit includes 1 license for iLO Select and Insight Power Manager. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

**NOTE:** For additional -HP Insight Power Manager Packs please see the QuickSpecs at: [http://h18000.www1.hp.com/products/quickspecs/12632\\_na/12632\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12632_na/12632_na.html)

### Server Management Stand Alone Software Product – ProLiant Essentials

**NOTE:** Electronic licensing options are available for Insight Control suites and select ProLiant Essentials software products. Please see the appropriate Insight Control and ProLiant Essentials QuickSpecs for additional information.

#### Deploy

#### Rapid Deployment Pack

ProLiant Essentials Rapid Deployment Pack No Media 1-Server License including 1 year of 24x7 Technical Support and Updates 452151-B21

**NOTE:** This license allows 1 server to be deployed and managed via RDP. Customer will receive a printed license entitlement certificate via physical shipment. The license

### Options

entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

**NOTE:** For additional ProLiant Essentials Rapid Deployment Pack License Kits- please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/11053\\_na/11053\\_na.html](http://h18000.www1.hp.com/products/quickspecs/11053_na/11053_na.html)

#### HP Server Migration Pack - Universal Edition

HP Server Migration Pack – Universal Edition, No Media, Physical / Virtual to ProLiant Single Migration License, including 1 year of 24x7 Technical Support 460750-B21

**NOTE:** This license allows 1 physical to ProLiant or virtual to ProLiant migration. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.

HP Server Migration Pack – Universal Edition, No Media, Physical / Virtual to Virtual Single Migration License, including 1 year of 24x7 Technical Support 460753-B21

**NOTE:** This license allows 1 physical to virtual or virtual to virtual migration. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.

HP Server Migration Pack – Universal Edition, No Media, 1-Year Unlimited Migration License, including 1 year of 24x7 Technical Support 460756-B21

**NOTE:** This license allows unlimited migrations (physical to ProLiant, physical to virtual, virtual to virtual, and virtual to ProLiant) for one year. Customer will receive a printed license entitlement certificate and documentation via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.

**NOTE:** For additional HP Server Migration Pack - Universal Edition License Kits please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/12855\\_na/12855\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12855_na/12855_na.html)

#### Control

##### Integrated Lights-Out Advanced Pack

Integrated Lights-Out Advanced Pack, No Media ,1 Server License 452141-B21

**NOTE:** For additional License Kits, please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/10861\\_na/10861\\_na.html](http://h18000.www1.hp.com/products/quickspecs/10861_na/10861_na.html)

##### Integrated Lights-Out Select Pack

ProLiant Essentials Integrated Lights-Out Select Pack, No Media, 1-Server License 452158-B21

**NOTE:** For additional License Kits, please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/12362\\_na/12362\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12362_na/12362_na.html)

ProLiant Essentials Integrated Lights-Out Select Pack, No Media, 8-Blade License, including 1 year of 24x7 Technical Support and Updates 452161-B21

**Featuring:** Sophisticated remote control and security features for HP BladeSystem servers and ProLiant ML/DL servers.

**NOTE:** For additional ProLiant Essentials Integrated Lights-Out Value Packs please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/12362\\_na/12362\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12362_na/12362_na.html)

### Options

#### Optimize

##### HP Insight Power Manager (IPM)

HP Insight Power Manager, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates 452677-B21

**NOTE:** Customers purchasing this upgrade must already have an iLO Advanced or Select license on each managed server. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

**NOTE:** For additional -HP Insight Power Manager Packs please see the QuickSpecs at: [http://h18000.www1.hp.com/products/quickspecs/12623\\_na/12623\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12623_na/12623_na.html)

##### ProLiant Essentials Virtual Machine Management Pack

ProLiant Essentials Virtual Machine Management Pack, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates 452153-B21

**NOTE:** Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

**NOTE:** For additional ProLiant Virtual Machine Management Pack License Kits please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/12328\\_na/12328\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12328_na/12328_na.html)

**NOTE:** Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to: <http://www.hp.com/servers/proliantessentials> or the various ProLiant Essentials Value Pack product QuickSpecs for more information.

**NOTE:** For more information regarding ProLiant Essentials Software, please see the following URL: <http://www.hp.com/servers/proliantessentials>.

#### HP Insight Control Environment for Linux

**NOTE:** Electronic licensing options are available for Insight Control software products. Please see the Insight Control Environment for Linux QuickSpecs for additional information.

HP Insight Control Environment for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates 464423-B21

**NOTE:** This part number can be used to purchase one (1) license with a single activation key. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

**NOTE:** One certificate is shipped for each license.

HP Insight Control Environment for Linux, Media pack (CD) - No licenses included 464422-B21

**NOTE:** This optional Media pack CD contains the ISO image for HP Insight Control Environment for Linux, HP System Insight Manager, and an integrated installer. Servers must be acquired separately.

This Media pack is optional because the latest ISO image and latest updates may be downloaded at no cost from: <http://www.hp.com/go/ice-linux> (click on Download button).

**NOTE:** For additional HP Insight Control Environment for Linux License options, please see the QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/13019\\_na/13019\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13019_na/13019_na.html)

### Options

#### Processors

##### Quad-core Process Option Kits

Quad-Core Intel® Xeon® processor E5450 (3.00 GHz, 1333 FSB, 80W)	464885-B21
Quad-Core Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W)	464886-B21
Quad-Core Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W)	464887-B21
Quad-Core Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W)	464888-B21
Quad-core Intel® Xeon® Processor L5420 (2.50 GHz, 1333 FSB, 50 W)	464891-B21
Quad-Core Intel® Xeon® processor E5410 (2.33 GHz, 1333 FSB, 80W)	464889-B21
Quad-core Intel® Xeon® Processor L5410 (2.33 GHz, 1333 FSB, 50 W)	464892-B21
Quad-Core Intel® Xeon® processor E5405 (2.00 GHz, 1333 FSB, 80W)	464890-B21

##### Dual-core Processor Option Kits

Dual-Core Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W)	464893-B21
Dual-Core Intel® Xeon® processor E5205 (1.86 GHz, 1066 FSB, 65W)	464895-B21

#### Memory

1 GB REG PC2-5300 DDR2 2 x 512 MB, single rank kit	408850-B21
2 GB REG PC2-5300 DDR2 2 x 1 GB, single rank kit	408851-B21
4 GB REG PC2-5300 DDR2 2 x 2 GB, dual rank kit	408853-B21
8 GB REG PC2-5300 DDR2 2 x 4 GB, dual rank kit	408854-B21

**NOTE:** Must be installed in pairs.

#### Hard Drives

##### SATA Non-Hot Plug Entry (ETY) Disk Drives

HP 120GB 1.5G SATA 5.4K NHP SFF ETY HDD	459357-B21
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**NOTE:** SATA drives have a 1 year warranty. Please see the SATA Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature:  
[http://h18000.www1.hp.com/products/quickspecs/11940\\_na/11940\\_na.html](http://h18000.www1.hp.com/products/quickspecs/11940_na/11940_na.html)

#### USB Options

HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
HP 1GB USB 2.0 Floppy Drive Key	442085-B21
HP 256MB USB 2.0 Floppy Drive Key	442084-B21
External USB 2.0 Multi-Bay II Cradle	PA509A
Multibay II 9.5mm DVD Drive	PA849A
1.44MB External USB Floppy Drive	DC141B
USB Floppy Drive	DC361B
2004 Standard Keyboard USB	DT528A#xxx

Options

Service and Support Offerings  
(HP Care Pack Services)

**NOTE:** The HP Care Pack service part numbers below for ProLiant BL c-Class server blades, cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

**Hardware Services On-site Service**

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Year, Electronic	UK042E
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Year, Electronic	UK043E
6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Year, Electronic	UK044E

Memory

**NOTE:** Memory configurations listed do not apply to "Factory Integrated Models".

DIMM installation guidelines:

- 1. All DIMMs must be PC2-5300 Registered DDR2, 667 MHz, ECC DIMMS.
- 2. Both DIMM slots in a memory bank should be populated. The blade will work with 1 DIMM but not recommended as performance will suffer.
- 3. Banks must be populated in sequential alphabetic order, starting with bank A.
- 4. Both DIMMs in a memory bank should be identical. Install identical DIMMs as pairs only, starting with DIMM socket 1, bank A. If not; performance will suffer.
- 5. Multiple advanced memory protection (AMP) modes are supported, based on DDR2 DIMM population and RBSU selection. The server blade defaults to Advanced ECC

HP ProLiant BL260 G5c Server Blade (1 P Model)

Standard Memory

1024 MB (2 x 512 MB) or 2048 MB (2 x 1024 MB) (depending on model)of PC2-5300, Registered, DDR2-667 ECC DIMMs

Standard Memory Plus Optional Memory

Up to 17408 MB or 18432 MB (depending on model) of PC2-5300, Registered, DDR2-667 ECC DIMMs. Memory is available with the installation of optional PC2-5300, Registered, DDR2-667 ECC DIMMs memory expansion kits.

Standard Memory Replaced with Optional Memory

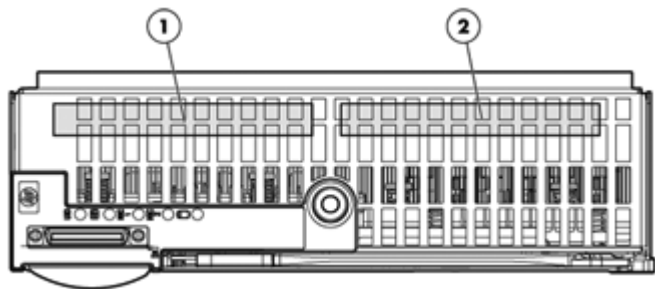
Up to 24576 MB of PC2-5300, Registered, DDR2 667MHz, ECC DIMMs. Memory is available with removal of standard and the installation of optional PC2-5300, Registered, DDR2-667 ECC DIMM memory expansion kits.

Memory		Slot					
		1A	2B	3C	4D	5E	6F
Standard	1024 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Standard	2048 MB	1024 MB	Empty	1024 MB	Empty	Empty	Empty
Optional	17408 MB	512 MB	512 MB	4096 MB	4096 MB	4096 MB	4096 MB
Optional	18432 MB	1024 MB	1024 MB	4096 MB	4096 MB	4096 MB	4096 MB
Maximum	24576 MB	4096 MB	4096 MB	4096 MB	4096 MB	4096 MB	4096 MB

Following are memory options available from HP:

1 GB REG PC2-5300 DDR2 2 x 512 MB, single rank kit	408850-B21
2 GB REG PC2-5300 DDR2 2 x 1 GB, single rank kit	408851-B21
4 GB REG PC2-5300 DDR2 2 x 2 GB, dual rank kit	408853-B21
8 GB REG PC2-5300 DDR2 2 x 4 GB, dual rank kit	408854-B21

Storage



1-2      2 x SSF SATA Non-Hot Plug Hard Drives

Hard Drives

Serial-ATA (SATA) Non-Hot Plug Entry (ETY) Hard Drive

	Quantity Supported	Position Supported	Controller
120GB 1.5G SATA 5.4K NHP SFF ETY HDD	2	1-2	Soft ware SATA RAID

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
HP StorageWorks 1500cs Modular Smart Array: <a href="http://h18000.www1.hp.com/products/quickspecs/11945_na/11945_na.html">http://h18000.www1.hp.com/products/quickspecs/11945_na/11945_na.html</a>			
HP StorageWorks 1510i Modular Smart Array: <a href="http://h18000.www1.hp.com/products/quickspecs/12230_na/12230_na.html">http://h18000.www1.hp.com/products/quickspecs/12230_na/12230_na.html</a>			
XP Disk Array Systems	Please see the XP Disk Array Systems QuickSpecs below to determine configuration requirements	External	Please see the XP Disk Array Systems Quick Specs for the latest list of supported HBAs
HP StorageWorks XP10000 Disk Array: <a href="http://h18006.www1.hp.com/products/storageworks/xp10000/index.html">http://h18006.www1.hp.com/products/storageworks/xp10000/index.html</a>			
Enterprise Virtual Array Systems	Please see the XP Disk Array Systems QuickSpecs below to determine configuration requirements	External	Please see the XP Disk Array Systems Quick Specs for the latest list of supported HBAs
HP StorageWorks Enterprise Virtual Array Family: <a href="http://h18006.www1.hp.com/products/quickspecs/12408_na/12408_na.html">http://h18006.www1.hp.com/products/quickspecs/12408_na/12408_na.html</a>			



### Technical Specifications

System Unit	Dimensions (H x W x D) (with bezel)	7.11 in x 2.03 in x 19.60 in (18.06 cm x 5.16 cm x 49.78 cm)	
	Weight (approximate)	Maximum (all hard drives and processors installed)	10 lb (4.54 kg)
		Minimum (one hard drive and processor installed)	8.5 lb (3.86 kg)
Power Specifications		<p>For power specifications including Input Requirements, BTU Rating, and Power Supply Output, please see the HP BladeSystem c-Class Infrastructure QuickSpecs located at URL:  <a href="http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html">http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html</a></p> <p>To review typical system power ratings use the HP BladeSystem Power Sizer which is available via the online tool located at URL:  <a href="http://www.hp.com/go/bladeSystem/powercalculator">http://www.hp.com/go/bladeSystem/powercalculator</a></p>	
System Inlet Temperature	Operating	<p>10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed.</p>	
		<p>System performance may be reduced if operating with a fan fault or above 30°C (86°F).</p>	
Relative Humidity (non-condensing)	Non-operating	<p>-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).</p>	
	Operating	<p>10 to 85% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.</p>	
Altitude	Non-operating	<p>5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.</p>	
	Operating	<p>3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).</p>	
Acoustic Noise	Non-operating	<p>9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).</p>	
	Operating	<p>For acoustic noise specifications, please see the HP BladeSystem c-Class Infrastructure QuickSpecs located at URL:  <a href="http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html">http://h18000.www1.hp.com/products/quickspecs/12517_na/12517_na.html</a></p>	

### Technical Specifications

HP Integrated NC326i Dual Port Gigabit Server Adapter Network Processor (Broadcom 5715S)	Network Processor	Broadcom 5715S
	Data Transfer Method	Four lane (x4) PCI Express
	Network Transfer Rate	2000 Mb/s full duplex (theoretical maximum value)
	IEEE Compliance	802.1p, 802.1Q, 802.3, 802.3ad, and 802.3x
	Standard Features	<ul style="list-style-type: none"><li>• 9K jumbo frames</li><li>• TCP/IP checksum offload (TCO)</li><li>• Large send offload (LSO)</li><li>• Interrupt coalescence</li><li>• Dual address cycles (DAC)</li><li>• Wake-on-LAN (WOL)</li><li>• Pre-boot execution environment (PXE)</li><li>• ProLiant Teaming including Network Fault Tolerance, Transmit Load Balancing, and Switch-Assisted Load Balancing</li><li>• IPv6 packet transmit and receive (excluding all offload capabilities); IPv6 aware SNMPv1 agents for Windows</li></ul>

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> . To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1 GB = 1 billion bytes. Actual formatted capacity is less.